

DOCKET NO. 01-P-002 (STMI01-00013)
Customer No. 30425

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: : Charles R. Spinner, III, et al.
Serial No. : 09/871,463
Filed : May 31, 2001
For : BARRIER FILM DEPOSITION OVER METAL FOR
REDUCTION IN METAL DISHING AFTER CMP
Group No. : 2815
Examiner : M.E. Warren

BOX AF
Commissioner for Patents
Washington, D.C. 20231

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CERTIFICATE OF TRANSMISSION BY FACSIMILE TECHNOLOGY CENTER 2800

Sir:

The undersigned hereby certifies that the following documents:

1. Petition Under 37 C.F.R. §1.144

relating to the above application was faxed to (703) 308-7722 on March 19, 2003.

Date: 3/19/03

Kathy Longenecker
Faxer

Date: March 19, 2003

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PETITION UNDER 37 C.F.R. § 1.144

Pursuant to 37 C.F.R. § 1.144, and prior to entry of Applicant's Notice of Appeal, Applicant respectfully petitions from the Restriction Requirement mailed April 9, 2002.

Applicant traversed the Restriction Requirement in a response filed May 1, 2002, and requested reconsideration of the Restriction Requirement in a response filed February 19, 2003.

The Restriction Requirement restricted claims 1-7, drawn to a method of making a semiconductor device, from claims 8-20, drawn to a semiconductor device.

The Restriction Requirement asserts that the method claims (1-7) and the structure claims (8-20) are distinct because the structure of claims 8 and 16 may be manufactured by a

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materially different process than that recited in claim 1. Specifically, the Restriction Requirement asserts that the product and process are distinct because "etching, instead of chemical mechanical polishing, could be used to remove portions of the protective barrier layer."

Restriction is only proper where the claims are independent or distinct. MPEP § 806. In passing on questions of restriction, the claimed subject matter must be compared in order to determine distinctness and independence. MPEP § 806.01. In the present application, pending independent claim 8 does not require removal of any portion of the protective barrier layer. Instead, claim 8 reads on a structure prior to removal of portions of the protective barrier layer (by, preferably, chemical mechanical polishing). In addition, it is not apparent that the structure recited in pending independent claim 16 could be formed by etching rather than chemical mechanical polishing. Claim 16 recites a portion of a protective barrier layer over a central region of the tungsten and within the opening. Isotropic etching would uniformly remove a conformal protective barrier layer, while anisotropic etching for partial removal would remove the vertically thinner portions (e.g., at the center of an opening) leaving sidewalls alongside vertical or sloped surfaces. Neither type of etching would result in the structure recited in claim 16.

In addition, a process of making and the product made are distinct inventions only if: (A) the process as claimed is not an obvious process of making the product and can be used to make other and different products; and (B) the product as claimed can be made by another and

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materially different process. The Restriction Requirement provides not basis for concluding that simple etching is materially different--i.e., patentably distinct--over chemical mechanical polishing.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: March 19, 2003



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